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DIGITAL LIVING

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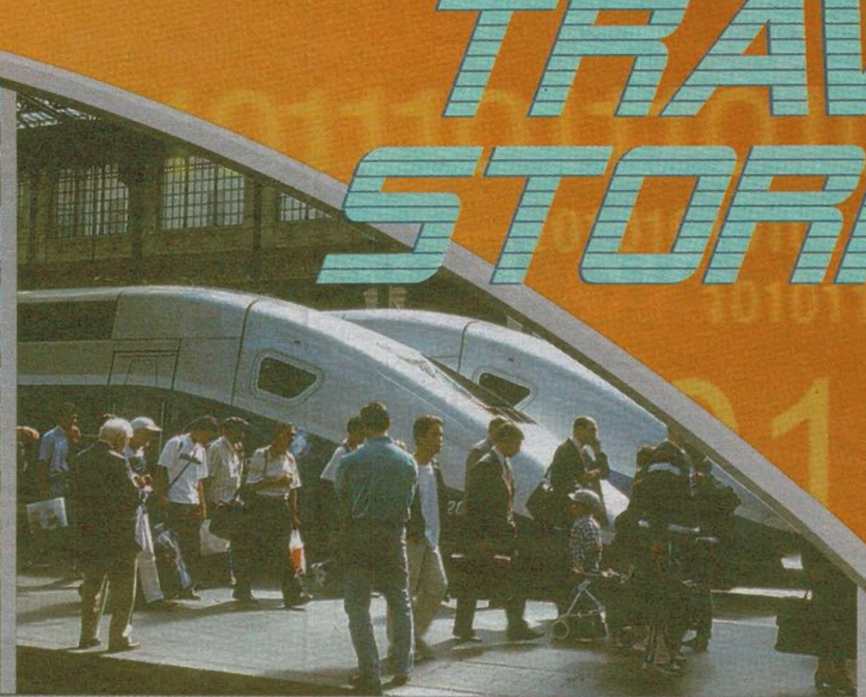

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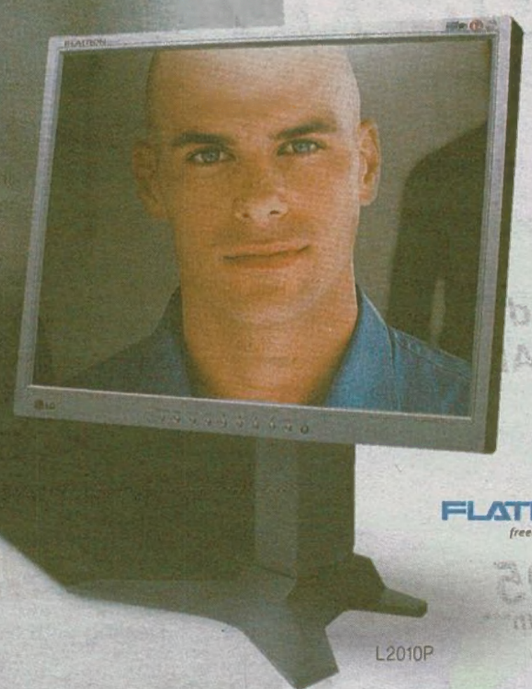

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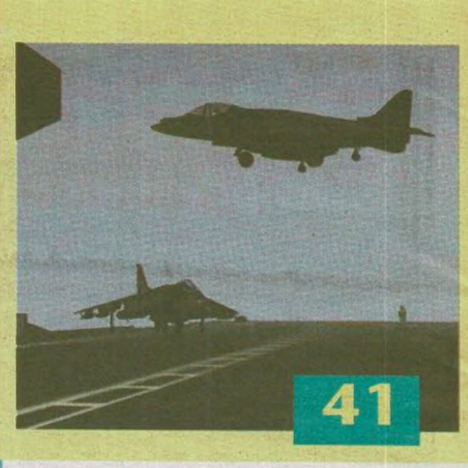

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See page 38 for details on the Cool Tunes Contest.

See the winner of our Digital Design Contest on page 46.

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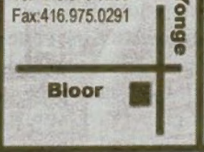

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From the editor

For the past several years, the music industry has been in turmoil. Record sales are plummeting, while lots of people are getting their music free via the Internet. After introducing digital music to the masses via compact discs, and making many of us buy the music we had all over again, the recording industry decided to rest on its cash-filled laurels rather than invest in new music or stop and think about what digital music is.

It's easy to sit back and look at things in hindsight. However, the recording industry should have had some inkling that people would start to copy music digitally and reduce the profits to the industry itself – after all, they did pioneer digital music, so there must have been at least one visionary that had a grasp of the technology's potential. Instead of looking to the future, the industry decided to bury its proverbial head in the sand and ignore the situation until it got out of hand. This is similar to the movie industry not knowing and not doing much about the transferring of movies. I've been told that the industry is not doing anything because it's not hurting profits – yet.

The music industry as a whole has been unable to do anything about the trade in digital music files. I believe that this is because it has no concept of what to do. While it was able to shut down the first symbol of music transferring, Napster, it hasn't done much about the Napster clones or other similar services. It is trying to push through unreasonable levies on any and every piece of digital media that might be capable of storing MP3s – legitimate users be damned. The recording industry has done little besides punish everybody for its own short-sightedness.

But along comes a sliver of hope. Apple Computer has launched an online music service that sells songs for US$.99. Based on its *iTunes* music program, this service is only available for Macintosh users, until a Windows version becomes available towards the end of this year. What's remarkable is that in the first week of operation this service sold over one million songs – more than half of them as full albums. The iTunes service, which is only available to US-based credit card holders, lets users listen to a 30-second sample of the music before making the decision to buy the track or not.

The success of this service is significant because it shows that people are willing to buy music if given the chance and the right format. Because this system is only available to Mac users for now, the sales are significant, given that Mac users are only a small fraction of computer users in general. When the PC version comes out, the sales might be staggering.

For the consumer, the iTunes service presents a great savings. If you just want one or two hits off a particular album, that's all you have to purchase. If you want to get the whole CD of music, which is usually about 12 songs, this is less expensive than buying the CD itself. There have also been rumours that Apple will buy Vivendi Universal's music division – talk about a fish swallowing a whale.

Although the Apple iTunes service is still very young, it will be interesting to see if this is indeed the model of future music sales.

Nestor Gula can be reached by e-mailing nestor@tcp.ca ◆

Reader Feedback

Nag time re: Lag time

This is a plea that your digital camera reviews include "shutter" lag times. When looking at a digital camera, one of the first things I want to know is if there is a lag between pushing the "shutter" release and the camera actually taking the picture.

All the high resolution in the world won't help if I continually miss the photograph I actually want. After all, most of us buy these cameras to shoot people, not landscapes. People's expressions and movements flicker by in milliseconds. Children jitter around, adults move their heads, arm positions can all change between the time one has pushed the release and the time the cameras record the scene. I'm not about to spend $500 and up for a machine that is too slow to take the photograph I want.

I may be wrong, but my only option right now if I want no lag time is to buy a digital SLR – $2,500 for the body, plus $500 for storage media, plus $300 to $700 for a zoom lens. And all I really want is a camera that takes the picture I want at the moment I want it to.

I feel that it is only by making this lag time important in the reviews that camera makers will come to feel it worth their while to address this problem.

Mark Fawcett

Quicktax extremely frustrating!

Letter writer Michael Sidnell in your last issue is right on about *Quicktax*. On my rebate form I wrote: I just spent $20 of my time to get a $10 rebate!! To add insult to injury, because of a botched installation of WinXP I have had to format my hard drive. Now I have lost all use of every year of *Quicktax* because it cannot be re-activated via the Internet or by phone. The response I got was that it was activated on a different machine. Support only answers tax related questions and the local number provided is no longer in service. Extremely frustrating!

Thank you for your time.

Adriaan Braam

The Editor *Toronto Computes!*
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Letters on issues raised in the paper or general computer topics are welcome. Please be brief. We regret that we are unable to look up stories from past issues, suggest products, or solve all your computer problems. All correspondence must include your full name in addition to your e-mail or snail-mail address. Letters may be edited for space or content.

Letter of the Month

For his letter this month, Mark Fawcett wins a copy of Microsoft's *Picture It! Photo Premium*. With this software package it is easy to manage, correct, enhance and share your images. Besides having basic photo editing features like red-eye reduction, *Picture It!* has 10 filters and 1,500 templates for you to use to enhance your photographs.

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About the cover
Our June cover was designed by Steve Stoner.

Toronto Computes! is published monthly by Canada Computer Paper Inc.

Canada Computer Paper Inc. Corporate Office
625 Church St., Suite 600, Toronto, ON M4Y 2G1
Tel: (416) 923-4200 Fax: (416) 923-5394

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Canadian Publication Mail Sales Product Agreement #0169021
Printed in Canada ISSN 297433
Toronto Computes! is distributed free through hundreds of stores, restaurants & boxes around Metro Toronto.

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Announcements: *pressreleases@tcp.ca*
Ad deadline June: Monday, June, 17
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The new multi-monitor desktop

By ANDREW MOORE-CRISPIN

Anyone who has tried setting up two monitors connected to one PC will likely extol the benefits of the multi-monitor setup. However, even LCD monitors can take up too much desktop real estate, and two CRT monitors would require practically a desk unto themselves.

With this in mind, a Korean company, Tophead (www.tophead.com/usa/) has come up with the first multi-display monitor.

A functional 15-inch LCD monitor with a resolution of 1,024x768 sits at the bottom of the seemingly space-age monitor, while a 6.4-inch LCD with a resolution of 640x480 sits on top.

The monitors act independently of each other, and setup is similar to any other multi-display desktop, using either separate video cards or one dual head card. Settings can be changed within the existing display settings of Windows XP allowing users to have a Web page, TV window, MP3 player or anything else imaginable running in the top monitor while working in the bottom.

As with other multi-monitor setups, the upper LCD screen acts as an extension of the desktop and allows users to move the cursor between the upper and lower screens.

The phantom Phantom

It's been about six months since Florida-based start-up company Infinium Labs (www.infiniumlabs.com) announced plans to enter the console video game fray. The announcement was met with a lot of skepticism from media types (this media type included).

The company said its console, called the Phantom, would be launched in November of this year, which would mean the company proposed to hit the market with a product only 11 months after the company itself was formed – a lofty goal.

The company has since pushed back its proposed product launch to 2004, with no date specified.

Infinium Labs is promising the media its first look at a working Phantom console this summer.

A Palm for the mobile audiophile

Palm (www.palm.com) recently unveiled its Zire 71 PDA with a striking new design, colour LCD screen, MP3 player, and – perhaps coolest of all – an integrated digital camera.

The PDA itself adheres to Palm's smaller-than-average size, making it easy to slip into a pocket, with the business part of the unit slipping up from a protective metal sleeve attached to the back to reveal a tiny 1:2.8 camera lens. The camera has a maximum image resolution of 640x480; too small to print anything other than a tiny print but perfect for e-mailing or posting to the Web. Sliding the PDA up from the metal sleeve reveals a shutter button on the bottom of the sleeve and automatically opens the camera application; closing the sleeve puts the camera into view mode.

All of the same Palm OS applications are present – with a slight makeover – including date, note and address book, as well as the to-do list.

The top of the unit features a Secure Digital (SD) card slot, for expanding the memory for use as an MP3 player, as well as the familiar infrared eye and a mini-plug headphone jack for listening to music.

Digital vs. SLR = the digital SLR

For quite some time now, newspaper photographers have had access to digital backs for their SLR (single lens reflex) film cameras. With these de facto digital SLR cameras, they get the best of both worlds: Manual SLR exposure control and lens options with digital ease and speed. Film camera conversions are very expensive, costing upwards of $10,000 per camera, and as such are pretty well exclusive to professional photographers, where the cost is justified by the savings in time and money involved in film purchasing and processing.

Olympus (www.olympusamerica.com) has unveiled the first ever 100 per cent digital SLR. Rather than modifying film cameras to capture digital images, the Digital SLR System, as the company is calling it, is designed as an SLR camera body around its 4/3 type image sensor.

Olympus says that working from the ground up allowed it to create a camera system optimized for digital use, and that its interchangeable digital lenses are "designed to maximize image sensor performance," where converted film cameras, by contrast, can allow "insufficient light at the edges of the image sensor (and) can result in reduced colour definition, particularly when shooting with wide-angle lenses."

The Olympus Digital SLR System will be officially unveiled in New York City on June 24 with complete specs and details, the company says. ◆

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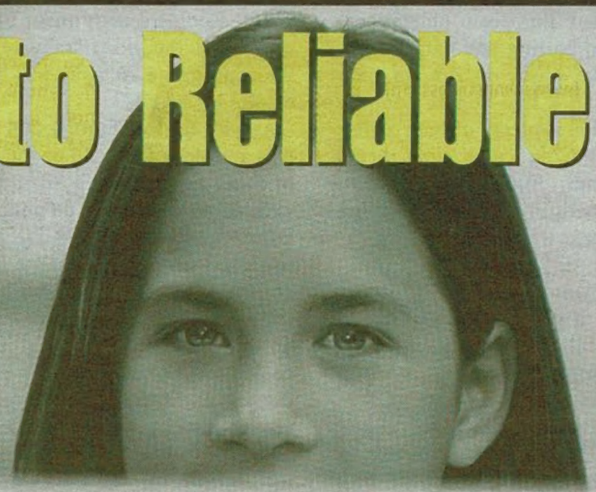

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Getting on a European train

By NESTOR GULA

The best way to travel about Europe is by train. Unlike the simple straightforward rail system we have here in Canada, Europe's is a cacophony of trains going hither and tither. You can get to most anywhere you want to using the railway. Often, in travelling from point A to B you will have to make one or two connections. Very often you will have several options each hour. This is great if you want to make side trips on your way.

Each country in Europe has to make sure that their rail system meets its domestic and European obligations, so barring any catastrophe, the trains do run on time and a five minute connection is plenty of time to disembark, catch your bearings, find the appropriate platform and embark on the next train.

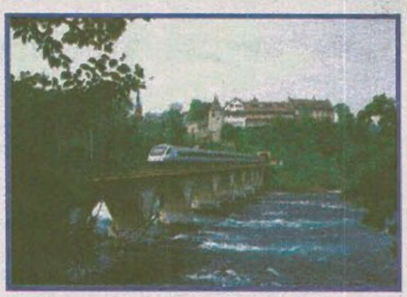
Planning ahead

If you are still in Canada and planning your vacation, searching for rail timetables is straightforward. You can go to Rail Europe's Canadian site at www.raileurope.ca. Here you will find the full info on Eurailpasses with Canadian prices and phone numbers as well as the train schedules and fares for point-to-point travel so that you can compare to see if getting a Eurailpass is worth it or not. This site is a bit clunky on occasion because of all the information it has to process, and sometimes it tells you that you can't get from one place to another even though you know you can. Nevertheless, it is a useful site to get an overview of rail travel in Europe.

Each country in Europe has its own Web site for its national rail system. These can easily be found by doing a simple Google search under the country name and the word "railway." Usually the appropriate Web site will be the first on the list of hits.

As with the Rail Europe site, the schedules and timetables can be found in most of these national Web sites, with some exceptions. Some sites do not offer inter-Europe information and are just useful for travel inside the country. Others will give you the train schedules but not the trip prices. What these national rail sites do usually offer is a great system for customizing searches – you can specify the day and time of departure as well as via points. In planning my European getaway I used the Swiss (www.sbb.ch) and German (www.bahn.de) sites the most, because they were both available in English, they gave great and easy to read information for all of Europe and they were easy to use.

The information derived from these sites is not just a simple departure time. You can get the routing, the exact train schedule including all stops and you can find the train schedules of the stations themselves to see where trains are going at particular times if you are not quite sure where you want to go – Europe does offer many enticing options, after all. ◆



APRIL
PHOTO SPREE WINNER

THE WINNER: Congratulations to Eugene Gibas of Georgetown whose springtime picture titled *Poppy Burst* wins a Lexmark X5150 All-In-One Print Center (scanner, printer, copier) in our sixth bi-monthly Photo Spree contest.

Eugene used an HP618 2 megapixel camera to capture this macro photograph of a flower in bloom.

Toronto Computes! staff were faced with a difficult decision in choosing the winner of the sixth Photo Spree contest. Thanks to readers for submitting some great images and congratulations to Eugene Gibas for taking the winning picture.

Keep those pictures coming!

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THE RULES: You must use a digital camera to capture the subject. Work can be submitted via e-mail (contest@tcp.ca). Accompanying your photo should be the make and model of the camera you used, the names of any software you used to modify the image and, if possible, the f/stop and shutter speed you used to take the photo.

Submit your photographs, along with the information from the form below, by July 11th, 2003. You can submit up to three photographs, all of which must be accompanied by a submission form. Entries must be submitted via e-mail. Files should be no bigger than 500 KB. One photo per e-mail.

Contest Rules: Prizes must be claimed by August 8th, 2003. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. To enter and to be eligible to win, persons must be residents of Canada, and not employees or be domiciled with an employee of Canada Computer Paper Inc., its affiliate companies, or advertising or promotional agencies. The winners will be selected by Toronto Computes! on July 14th, 2003 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or e-mail. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of Toronto Computes! and may be used in subsequent advertisements for the contest. All entries must be submitted by their artist and must be original work.

Toronto Computes! 6th Photo Spree contest form. All submissions must contain this information

Deadline: July 11th, 2003

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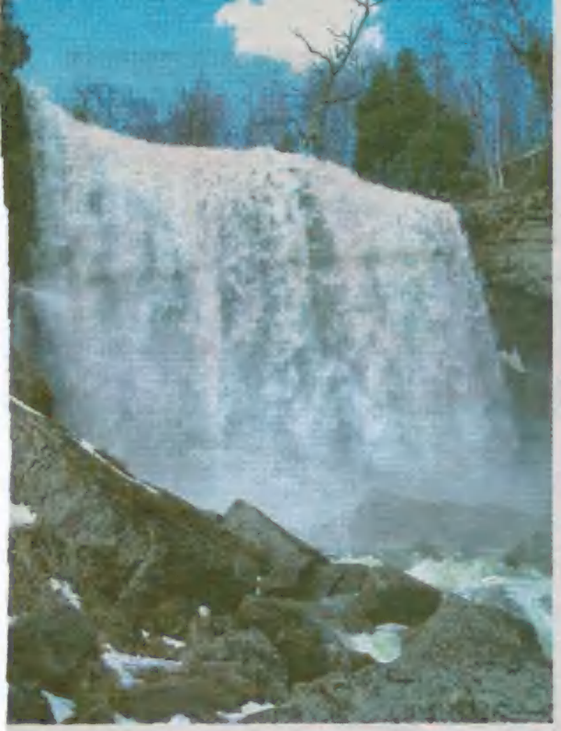
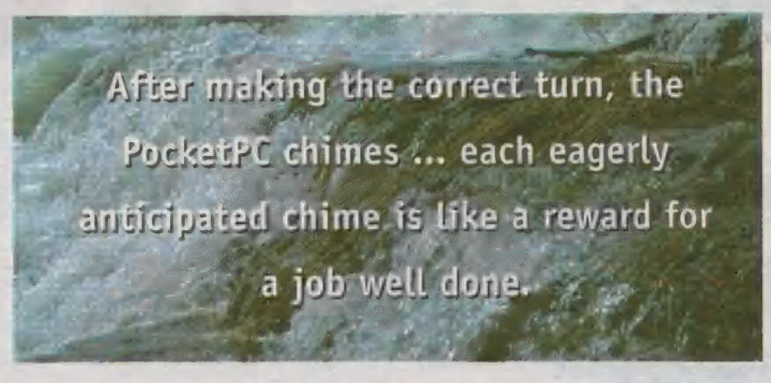
Age: .....
Occupation/School: .....
Title of Entry: .....
Camera Used: .....
Software Used: .....

Tales of the high-tech hiker





By ANDREW MOORE-CRISPIN

We join our intrepid explorer as his mom, excited by an unexpected visit from her son, packs a lunch of water, trail mix and dehydrated fruit bars.

In his backpack, we find an Olympus Stylus 300 all-weather 3.2-megapixel digital camera (www.olympusamerica.com); two solar charging panels from ICP Global (www.icpglobal.com), the iSun BattPak and the SolarPRO; one NiMH battery charger that connects to said solar charging panels; numerous wires, cords and connections to bridge between the solar chargers and the high tech devices as well as a Pharos PocketPC GPS unit (www.pharosgps.com) and a Dell Axim X5 PocketPC (www.dell.ca).

Before departing, a route must be planned from downtown Toronto to Burlington, where our protagonist will rendezvous with his contact to secure transportation to his first destination: Webster's Falls in Dundas, Ontario.

Before leaving, he goes online to get some directions from a Web site that lists hiking destinations along the Bruce Trail (www.brucetrail.org). To program the GPS unit to steer the way, he needs to know the address or intersection of his final destination. The first hitch of the day is met in the form of a flashing "cable" light on his cable modem – no Internet at home for the next three days while it's being fixed.

Not one to be easily thrown off, our explorer remembers the Internet access points in Union Station – they seemed a little superfluous before, but in this situation, with little time to spare and the needed information sitting on a server waiting to be accessed, he will gladly pay the $2 for 10 minutes to access the Net using an awkward keyboard and trackball setup.

Directions in hand, he and his companion dash off to buy tickets for the GO train, where the route from Burlington to Webster's Falls will be planned along the way.

A map of Toronto, including the GTA and much of the sprawl as far west as Windsor has been downloaded into the PocketPC. This will act as an in-car GPS unit using the Pharos GPS receiver and software, ticking off the kilometres, advising of upcoming turns and highway on and off ramps in a tinned American female voice. "You are off route," she says, making route rhyme with grout.

Not one for thoroughly reading manuals, our explorer takes the time to program a route from Burlington to

continued on page 14

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Tales of the high-tech hiker

continued from page 11

Webster's Falls into the GPS unit; it's a relatively simple affair, but one that requires a little reading before going ahead. The Pharos map software requires that users do a little research before programming a route; it can plot to an address, intersection or general area, like a small town.

The hitch: A few very small roads aren't in the Pharos database, though the company says it will be releasing new Canadian maps soon. This doesn't prove to be too big a problem in this case, as the software plots a course to the previous intersection, where it is clear what comes next on the journey.

Along the way, the PocketPC chimes, talks and tracks the progress, telling our explorer that there's a "right turn ahead." The software seems to take into account the type of road and speed travelled; on the highway, it gives about 1.5 kilometres advanced warning before a split or needed off-ramp, while on surface roads, it gives less advanced warning, so as not to make things confusing.

After making the correct turn, the PocketPC chimes, letting our explorer know that he is on the correct route and near the end of the journey – each eagerly anticipated chime is like a reward for a job well done. Our explorer's mouth almost waters like one of Pavlov's dogs.

However, for those that see in-car GPS as the solution to the unscheduled map checking stops, don't be too hasty. After finding out that one of the roads our explorer needed to get to the falls was closed because of spring flooding, a new course had to be plotted, detouring around the closed road. After looking at the map on-screen and deciding on another plan of attack, the PocketPC attached to the GPS unit keeps chastising our explorer for going "off route." Once an alternate route was discovered, it was simply a matter of driving off course then pressing the action button on the PocketPC to re-route to the destination according to the current position.

On the train, the iSun Sport sat in the window to catch the sun and charge the batteries in the BattPak that connects to the back of the iSun solar panel. The batteries have been mostly charged in the sun beforehand, and this is just the final step; iSun says the batteries, up to ten of them in the BattPak at a time, will be fully charged by the solar panel in seven hours of bright sunlight. The solar panels aren't practical for charging the devices that are along for the ride; they can't produce a strong enough or steady enough current for that. However, once the batteries have been charged up using the sun's power, users can connect to the BattPack and use the stored energy to charge devices.

In the car, the BattPak connects to the Stylus 300 to charge it on the way. The lighter socket is taken up to power the GPS receiver, which is stuck in the upper right hand side of the windshield, dangling wires across the interior of the car.

Carrying the BattPak and solar panels adds considerable weight to a backpack, and is impractical for true wilderness hiking or canoeing where every gram of pack weight is scrutinized. But for a short camping trip where gear weight isn't too big a consideration, the solar solution can work well; batteries can be charged during the day and devices charged up by night. The voltage is controlled by how many batteries are present in the BattPak when the leads are hooked up for charging; each AA battery represents 1.5 volts, so if a camera requires six volts to charge, users can put four batteries in the unit, hook up with the included cables and charge any device using the stored energy of the sun.

The Stylus 300 turned out to be the right choice, as it is an all weather digital camera with everything sealed tightly inside a small and sturdy case; Olympus says the camera can deal with a bit of moisture without any negative effects. It's not waterproof by any means, but can deal with snapping pictures in the rain or, in this case, at the base of a waterfall where the water hitting rocks leaves a heavy mist in the air. The Stylus 300 captured pictures where our explorer would have been very nervous taking most other digital cameras.

At the end of the day, our explorer, feeling much less intrepid (after all, this was only an afternoon trip) is pleasantly surprised by how well all the devices worked in conjunction with each other. There were naturally a few snags along the way, mostly from poor planning; for instance, the camera didn't have time to fully charge along the way, as it was only hooked up to the BattPak for about an hour before being used. The camera ran out of juice about halfway through the trip, but was returned to the backpack to charge up for another hour, which allowed for about 15 more exposures. Also, the aforementioned road closure and just plain human error factored in to the trip. All things considered, our explorer and his compliment of high tech devices fared well in the carefully scripted, well maintained but still beautiful "wilderness."

Next time perhaps, a true wilderness trial by fire for the high-tech hiker. ◆

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Planning is key to a travelling home office

By MARA GULENS

London? Hong Kong? Sydney? Heading overseas used to be so easy. All you needed was a passport, travellers' cheques and a map. Everything else lay in the thrill of just being there.

These days travel, just like being at home, has gotten a bit more complex. Besides dealing with exit and entrance worries in a post 9/11, SARS world, the least you'll want is access to your e-mail. And you may require a cell phone. Oh, and how about an electronic device to record your ramblings?

If you plan to take the global citizen thing one step further, and will set up your actual home office in a foreign locale, read on. There's loads of pre-departure prep involved in making a hassle-free transition from home office to home-office-away-from-home. Follow these basic guidelines.

Computer

Since you have a limited baggage allowance, you'll most likely decide to travel with a laptop. If you usually use a desktop, make sure all those important files and applications are transferred and have a trial run before you go to make sure everything is working properly.

To minimize the calamity in case your laptop is stolen, install encryption software to protect its contents. Back-up regularly so that if you do lose your laptop, you still have access to your intellectual property. One option is to bring along a hard drive backup, that you can store safely at a friend's place or consider automatic file back-ups, offered by the likes of www.backup.com and www.mac.com.

Make sure you have all the right cables and plugs. Better yet, consider going wireless (stringing wires through a temporary office space in a foreign country could prove a bit challenging). Many computers are now multi-voltage

What's packed

For her overseas home-office-away-from-home adventure, Mara Gulens will try out the following technologies. We'll report on the success of her overseas connectivity in a later issue.

Computer: Apple ibook
Printer: HP Deskjet 450 mobile printer
Internet Connection: DSL account with local carrier; retrieve Sympatico e-mail remotely
Cell phone: Fido's Sony Ericsson T300 GSM world phone with global roaming or international use; Account with local GSM provider for local usage.
Digital camera: Canon PowerShot G3

Fetching calls overseas

If you're planning to travel overseas, two Canadian carriers – Microcell (Fido) and Rogers – offer GSM phones that can be used in Europe.

"I don't believe it makes sense to get one over there," says Sean Dalton, vice president of marketing for Microcell Solutions.

Fido's latest entry, the Sony Ericsson T300 world phone, operates on Fido's national GSM network, as well as in 128 countries where Fido has roaming agreements . All you do, says Dalton, is make sure you're registered for international roaming, walk off the plane and – tada – your phone works. "It's a lot easier than finding a pay phone," he says.

–Mara Gulens

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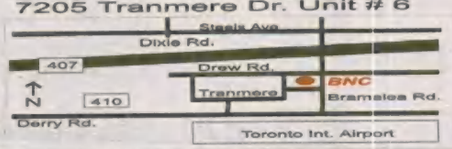

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FEATURE

Planning is key to travelling

continued from page 15

(they work with 100 and 220V).

Printer

Your printer has to be small enough to fit into a suitcase yet powerful enough to make you feel like you're in business, even though you're thousands of miles away. You can either purchase one at your destination or take a printer with you. The latter means you lose no time shopping around.

E-mail

There are many options for checking e-mail overseas. The easiest is to use a local Internet café, but if you're setting up a home office, this will be a problem. Better get an Internet account with a local provider and connect to your e-mail address from back home.

If the thought of paying for a Canadian Internet account that you won't be using irks you, remember that's still easier than notifying your contacts of an address change, and then having to do it all over again when you return.

Another option: Use a free e-mail address, like Hotmail or Yahoo, and completely avoid issues related to reconfiguring mail accounts.

Internet connection

If you're used to a high-speed line, whether for work or pleasure, chances are that's what you'll need when you settle into your destination.

Do some surfing beforehand and get acquainted with local carriers and rates. If possible, have someone install the line before you arrive so you don't have to wait weeks to go online.

Cell phone

When it comes to cell phones, there are again several options. Either purchase a phone at your destination and use a local carrier or search around for a phone that's compatible with the country you're heading for – and/or use a local smart card to cut costs. If you plan to use your phone in multiple locations several times over, the second is your best bet.

Digital camera

Digital cameras are the easiest bit of technology to transfer, but what to do with the images? Will you save them on your laptop? Upload them? If so – where?

Consider an online photo service, but try it out before you go so that you already know what to do once you're away. If this is the route you decide to go, you'll be thankful you arranged for that high-speed line. ◆

(Free)DOS is not dead

Operating system junkies rejoice! News of the death of DOS has been greatly exaggerated. Just ask the team of contributors to the FreeDOS project and they will tell you why thousands (millions?) of people still use DOS today. From system administrators who carry a DOS-bootable diskette in their pocket loaded with utilities to help fix hardware and software problems to those who still use their 286 machines loaded with a whopping 1 MB of RAM, DOS still has a place in the computer industry.

History

For the early years of personal computers, Microsoft was synonymous with DOS. Virtually every PC sold until August 1995 included a copy of MS-DOS. When Microsoft announced that it would be dropping DOS to concentrate on 32-bit Windows in 1994, a group of programmers decided to create a truly free version of DOS, with the source code available to all. And so began the FreeDOS Project.

Although many other companies, including IBM and Caldera, have released versions of DOS over the years, FreeDOS is not derived from any of them. Instead, it was written based on the descriptions of DOS programs given in publications such as the user manual and the help files.

Why bother?

Just like MS-DOS, FreeDOS is designed to work on all PCs. From the lowly XT with 640 KB of RAM to the latest and greatest Pentium 4 with 4 GB, you should be able to install and run FreeDOS.

But seriously, why run any version of DOS with Windows XP and Linux available? Good question, and to be honest I haven't figured out a satisfactory answer (although I'm sure someone will e-mail me one). Without going out on a limb, I'd speculate that there is probably no good reason to run FreeDOS on any computer purchased in the past seven years. However, used computers abound and more homes now have two or more computers. Many people aren't willing to throw away a perfectly good machine. Installing an old operating system with a generic word processor and spreadsheet may mean the difference between productivity and downtime when another family member is using the main computer.

DOS is also a great way to learn about how computers work; just ask your system administrator, who will probably reflect fondly on the hours spent editing "config.sys" or "autoexec.bat" to get hardware and software working properly. Do you want to learn about programming operating systems? FreeDOS and Linux both provide the user with the full source code. Learn how to write device drivers, access memory or the hard drive or even how to perform networking tasks. All you need is a C compiler, as full source code is freely available.

Open source software has other advantages over commercial software. Due to the lack of distribution restrictions, FreeDOS can be bundled with hardware diagnostic utilities or used in conjunction with an emulator under your main operating system. It is the official DOS of DOSEmu, the DOS emulator that runs under Linux, and it also works on other PC emulators such as Bochs, plex86 and VMWare. It is also quite portable – how many operating systems still fit on a single floppy diskette?

Latest version

The current version of FreeDOS is Beta 8H1 and is available only as an ISO CD-ROM image, but from this you can make bootable floppies for older machines. The FreeDOS software package includes the basic DOS utilities (such as xcopy, print, attrib, etc.), compilers, GUIs, editors, network software, as well as other open source utilities.

FreeDOS is released under the GNU General Public Licence. The main support site is of course the FreeDOS Web site (www.freedos.org). There, you can find a very detailed FAQ that answers questions involving hardware and software support and an Installation HOWTO, which should provide the new user with detailed instructions to get FreeDOS installed. Or just burn the bootable CD image and give it a try. You might just find it a valuable tool to add to your bag of tips and tricks.

Personal e-mail to Kevin Linfield can be sent to linfield@rocketmail.com. ◆

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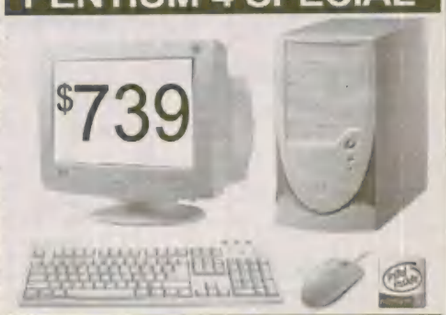

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Taking a tech-heavy Caddy for a spin

By NESTOR GULA

It is a rare occasion that I feel I'm the king of the road. My car's a relatively new econobox and my motorcycle is about 25 years old. So when I went cruising in a Cadillac Escalade ESV I was able to feel special.

This ain't your run-of-the-mill Caddy. It is basically a GMC Suburban SUV done up by the folks at Cadillac. It's one of the biggest things on the road. It is definitely the most opulent SUV there is. What interested me in this vehicle was not its size, its performance – quite spiffy considering its bulk – nor its extravagance. What this vehicle has is probably the most sophisticated automotive controls available in a commercially available vehicle.

more INFO

2003 Cadillac Escalade ESV
$78,150 (base)
$84,765 (as tested)
General Motors
www.gmcanada.com

Inner workings

There are two levels of sophistication that make up the Cadillac Escalade ESV: Stuff you see and can play with and stuff that works without you knowing. The latter grouping primarily consists of the amazing Stabilitrak stability enhancement system and the Ultrasonic Rear Parking Assist system. There are a lot of goodies in the engine that are beyond this article and other stuff in the suspension that has been around for some time.

The Stabilitrak system keeps this huge SUV stable all the time, giving the driver a very confident feel of the road. Corners I would take at 65 km/h in my econobox were done easily at 80 km/h without any perceived body lean on the Caddy. It will be very easy to get a lot of speeding tickets in this machine. The Ultrasonic Rear Parking Assist system is a system of sensors on the back bumper that sense if there is anything behind you when you are backing up. If there is you get a series of chimes. A very handy feature – especially for something this big.

Fun stuff

General Motors has been advertising its OnStar system for a while. This system used to be available on Cadillacs exclusively but is now available on many cars in GM's fleet – including the lowly Cavalier. The OnStar system consists of three buttons, the White Dot Button (that's what it's really called in the info), the Blue OnStar Button and the Emergency Button. The White Dot Button is basically your phone button. You use it to place, answer and end calls you make while driving. Your car is your hands-free voice-activated phone. Hit the button and say "dial," say the number you want and you are through. You can save up to 20 numbers in memory. It works like a prepaid phone, where you have to buy units using your credit card. Here's a trick though – if you keep your calls to under 35 seconds the calls don't get registered and you don't get charged. I expect this will be corrected soon.

The Blue OnStar button is what you press when you feel lonely or lost. There is always someone on the other line that will help you – or at least try to – whenever and wherever. Don't know where you are? Hit the button and ask. Advanced packages will give you routing information, hotel reservation services and even a concierge service that will get you tickets to shows, sporting events and the like. This service will unlock your door if you happened to lock your keys inside (worked like a charm) as well as provide roadside assistance and remote diagnostics. With the latter, if your engine light goes on you can hit the button and they will do a check up of your car's engine and tell you what is wrong with it and what you should do. If it is drivable you will go on your merry way, but if it is more serious they will send a tow truck or a mechanic to fix the car.

The emergency applications of this system are quite impressive. The Emergency Button should only be used for emergencies such as medical or mechanical. If you are involved in an accident and the airbags deploy the OnStar people are immediately contacted and they know where you are and can contact the proper authorities to offer aid. The system uses a GPS and cell-based system to receive and send information. This same system is what powers the Stolen-Vehicle Locator system.

The Escalade also came with a very sophisticated DVD-based Navigation system. I've tried navigation systems before and was always disappointed. However, this one was great. After a bit of time spent getting used to it, I realized that it was not that much of a problem programming it. You punch in the route you want to take and it will tell you where to go. It only let me down once when I was waiting for it to tell me to take a certain exit and it did so a bit late. Because of this I ended up nearly crossing into the States, having to do an illegal U-turn just before the border and paid $3.25 in a toll for a bridge I did not use. But then again the Nav system did lead me right a few times, so I still think it is a great thing to have.

In the back there's an entertainment system, a DVD player with a 7-inch screen. It supports two wireless headphones (good) and has a video and stereo audio inputs so that you can connect your camcorder or game console there. The Cadillac Escalade ESV seemed to have everything – the only thing that was missing was a 110 volt plug. ◆

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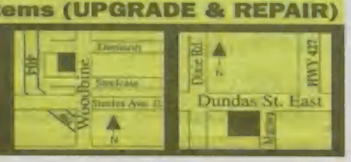

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What's in a dot Mac?

Apple launched .Mac back in July 2002, coinciding with the release of Jaguar. Much to the dismay of over two million iTools users (a free Web service) the new service would cost US$99 per year and iTools would no longer exist. There was outrage, there was lashing out, there was a call for blood ... then there was silence. The last press release from Apple relating to .Mac was at the January Macworld. The company announced that over 250,000 new users had signed up for the service. Apple doesn't say how many of those are former iTools users. It's a safe bet that significantly less than 10 per cent have switched over. Like so many other questionable decisions Apple has made over the past year, this one seems to really be catering to the new user and at times, at the expense of the old.

Is .Mac worth $159 (Canadian price, as advertised on Apple's Web site) per year? That depends entirely on what you want to do. If you're only looking a Web-based e-mail address with the fashionable "@mac," then there might be better ways to spend your money. Any free Web-based e-mail offers similar services. Standard e-mail storage with a .Mac membership is 15 MB, and you can buy up to 200 MB for an extra $90 per year. Hotmail (for example) offers 2 MB for free, and 10 MB for US$30 per year. Take a hard look at how much e-mail you'll need to keep in your inbox to make sure it's worthwhile paying for such a service.

Another service offered on .Mac is iCards. There are a series of postcards that you can send out to say hi. Again, does this make you want to spend $159? Probably not. Free e-card greetings are available from dozens of sites throughout the Web.

The Backup utility is neither here nor there. Anybody with important information on his or her computer will practice some sort of backup procedure. Paying for it to happen automatically may be nice (especially if you're even slightly forgetful) but again, is the cost justified?

Mmm – so far not so spectacular. But e-mail, e-cards and backup utilities are not what .Mac is all about. Creating a digital community through Apple hardware and software is probably closer to the mark.

For starters, there is online Jaguar training available to .Mac members. This is the first step in wooing new users. Once you have a handle on the OS, you will be pleased to find that the interaction between .Mac and your computer is pretty tight. iDisk offers you 100 MB (up to 1 GB can be purchased) of storage on the Apple servers. That's extra off-site storage that is accessible from your computer just like any other drive. There's also a Public folder on your iDisk that can be accessed by anyone with an Internet connection, so that you can share large files without having to send an e-mail. This includes Windows XP users. It beats the heck out of FTP.

iPhoto is also connected to your .Mac account. If you have a group of pictures that you want to share with someone, just click the Homepage button in *iPhoto* and your selected pics will be published to your very own Web page. Simply send an e-mail with the address, and voilà,

more INFO

- A .Mac membership can be purchased directly from the Web site at www.mac.com.
- A 60-day free trial membership gives you a single @mac e-mail address with 5 MB of storage as well as 20 MB of iDisk storage.
- Any new Apple computer bought before June 28, 2003 is eligible to sign-up for a one-year membership for only $114.
- Previous iTools users can still transfer their iTools e-mail address to an @mac address.

Requirements:

- Any Apple computer running OS 9 or later can access most of .Mac.
- Homepage creation requires a Mac running OS X with *Internet Explorer 5* or later.
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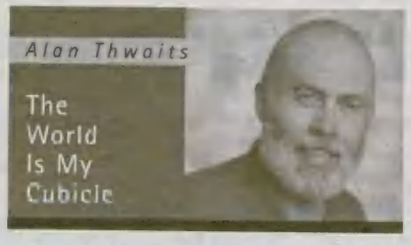

Sometimes you're the bug, and sometimes you're the windshield. When change happens, it's often hard to figure out where the impetus for it comes from, or exactly what the dynamics around the shift are. That's exactly the case where e-mail is concerned. My attitude to it has shifted radically over the past couple of years, and I'm trying to understand the what, how and why of it all.

The beginning goes a long way back. This may sound strange, but my love of e-mail started with missives of the old, paper-based, snail-mail kind. My family emigrated to Canada when I was only six years old, so an unavoidable part of my childhood consisted of mail exchanged with absent relatives. As you can imagine, the letters that went from Canada to South Africa weren't anything remarkable, but the letters and parcels that came the other way seemed magical to me. The stamps were weird, the envelopes showed evidence of long and tough travelling, even my own name and address on the front seemed exotic and strange. I was already seduced and captivated by the siren call of "mail."

E-mail was the first thing I checked in the morning, the last thing I checked at night, and a lot of what I did in between.

Fast forward to the early 1990s. Popular use of the Internet was still a little way off, but BBSes – computer-based bulletin board systems run by hobbyists – were all over the map. With a computer, something called a modem, a telephone line and an inexpensive piece of BBS software, anyone with the desire to do so could set up and run his or her own communications empire. Like so many others, I ran one too. (Look in back issues of *TC!* for the long lists of BBSes available in this publication's coverage area.)

A typical BBS of the time usually offered files for downloading. How much could be downloaded depended, of course, on the host computer's capacity. This was long ago, remember, well before the advent of 10 GB hard drives, so capacity was always an issue. Some BBSes were known and loved for the downloads they offered. But the real killer app of BBSes was messaging. The primary purpose of a BBS was to offer message forums, the subjects of which ranged across the spectrum of people's interests. There were message forums on books, cycling, computer OSes, needlework and so on. Even a low-end, everyday BBS like mine connected to entities known as "hubs," which meant participation in a local BBS's message forums was open to folks around the world.

What better context for a mail/message junkie? It was a different medium from those childhood letters and packages, but the same thrill. The exotic stamps and worn envelopes were replaced by odd user handles and weird BBS names. But the mail got through, and I got my fix.

Time for another fast forward. The world of BBSing was soon overwhelmed, of course, by the juggernaut of the Internet. The big, commercial BBSes stayed around for a while, but the small BBSes quickly gave way to a worldwide communications net that could (and did) link users around the world. Gopher gave us a rudimentary search tool, newsgroups felt a lot like BBS message forums and later there was something called the World Wide Web that allowed us to view graphic images. But the Holy Grail was e-mail. It took no time at all for me to get an Internet account (with CRS Remote, an early Toronto-area provider), put my e-mail address on a business card (when this wasn't the done thing at all), and start to evangelize on behalf of the Gospel of E-Mail.

You can guess where that journey went. Between then and now, I became an e-mail addict. I subscribed to countless e-mail lists, ran more than a few of my own and basically lived according to the demands of my inbox. E-mail was the first thing I checked in the morning, the last thing I checked at night and a lot of what I did in between. People who knew me well quickly realized there was little point in phoning me – far better to shoot off a quick e-mail message. "Holy heck," they'd say, "do you actually live inside that keyboard?"

But things have changed, I've unsubscribed from almost every list I belonged to, I run only one list of my own and I prefer to e-mail only those people I know I'm going to see regularly in the real world (what I used to facetiously call "facetime"). Now I spend more time riding long distances on my bicycle than sending and receiving e-mail. It may be because I'm getting older, it may be because e-mail as a tool is now more about utility than magic, it may be because the Internet isn't quite the friendly community it used to be. I'm not really sure.

Don't get me wrong. I'm not giving up my e-mail address. But I'm definitely moving towards living without the constant buzz the wired world used to provide. ◆

Alan Thwaits, a *TC!* Contributing Editor, is a freelance journalist who writes about computer, communications, and business technologies. He can be reached at praxis@pathcom.com. ◆

Mac Chronicles
continued from page 22

you've set up shop on the Web. Someone with a dial-up account will really appreciate not having to receive your 3 MB pictures through e-mail.

A similar utility is available for *iCal*, Mac's calendar. When you publish your calendar, your schedule is available to your friends and family. This is a real time saver when you have a lot on the go and your spouse wants to find some free time for a romantic getaway.

A recent addition to .Mac has come, surprisingly, not from Apple but from Microsoft. *MSN Messenger* is now compatible with @mac e-mail addresses. While this may not be attractive to long time Mac users, for newcomers it's one more reason not to worry about compatibility with the rest of the world.

There are other pluses to .Mac as well. Free software is constantly offered (such as the popular *Virex* anti-virus package). There's also *iSync*, which synchronizes with your address book so that your contacts are available from any Internet connection. It seems that every day there are new features being added – some useful, some not so. When used as a complete package (as Apple wants) $159 is not a bad deal. But if you're only looking for a couple of features, put your wallet away and opt out for the freebie services that are scattered across the Web. ◆

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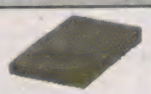

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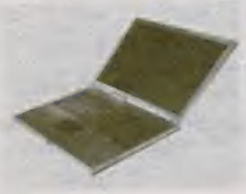

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CREATIVETECH

Adventures in digital video: Lighting with nature

By LEE RICKWOOD

Summer's here, and the time is right. After a long and challenging winter, it's great to [illegible] warm, sunny days for video-taping outdoors. With video, it's usually safe to say the more light the better, although too much can be just as bad as too little. That's especially true when working with that great key/fill/backlight in the sky, a.k.a. the sun.

Bright sunny days make people squint, wrecking outdoor portrait shots, interview sequences and the like. Too much sunlight washes out shadows, which are key to creating depth and defining shapes on-screen. A lot of sun can overload a camera's electronic circuitry and cause unwanted lens flare.

But there are ways to control excess outdoor light and use it to your advantage.

Avoid areas where the sun pounds down mercilessly and no shade is to be found. Parking lots aren't much fun at high noon, nor are they very attractive visually. Better to shoot in a location where light is reflected or diffused. Overhead leaves can soften light (but may create strange patterns as well).

You can use a polarizing or daylight filter on the camera, as discussed in previous columns. Or consider using bounce boards [illegible] even a white sheet or pillowcase as an outboard way to soften harsh light.

Just as we like summer better than winter for outdoor video shoots, there's a good reason adventurous videographers prefer one time of day to another. Light is not constant; it has different properties at different times of the day. It may be too strong at noon, but it can also be too weak at other times.

The best hours for outdoor shooting are roughly an hour after sunrise and one hour before sunset.

These windows of opportunity are the "magic" or "golden" hours, and there's a history of scientific investigation as to why that is. Nineteenth century scientist and adventurer John Tyndall thought particles in the air scattered light into different colours. Later, Lord Rayleigh (a Nobel recipient for his work on gases in the atmosphere) said tiny air molecules split light into different wavelengths, which we see as different colours.

As it turns out, several elements contribute to the fact that white light gets broken up into its many component wavelengths (measured in nanometres, just like DVD lasers) and is reflected and refracted differently throughout the day.

Shooting at sunrise, of course, means

continued on page 29

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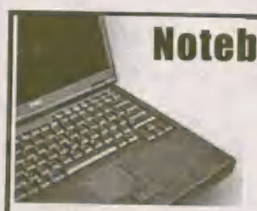

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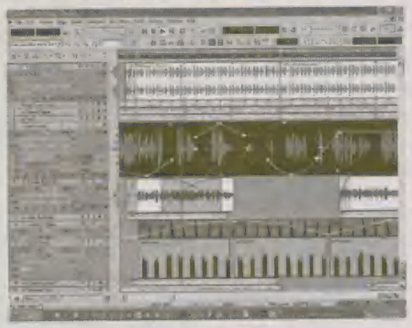
Musical Odyssey: Laying down tracks

By NESTOR GULA

Although it is great fun, there's no escaping the fact that recording music on a home computer is a time-consuming activity. You have to record each track individually.

The usual sequence is drums, bass, guitar, keyboard and then vocals. The order between the guitar and keyboard,



or whatever other instruments you want to throw in, is not that important, though. Putting the rhythm section down first is crucial. Trying to sync up a drum beat to a meandering vocal or guitar track is next to impossible. Some professional software packages have beat correctors that will sync up your sloppily recorded vocals and guitar to the beat. Cheating, eh! It really does make sense to lay the rhythm down first – this represents the foundation of the song, so get this down and out of the way.

To keep you in the groove, most recording software packages have a metronome built in. Activating this produces a steady rhythm from your computer's speakers. This sound will not be recorded on your track. Setting the time also helps you keep everything together as you go along.

With many systems, latency is a huge problem. Latency is the delay between telling a computer to do something and then having it perform that task. This is best exemplified by early desktop publishing programs that ran on 20 MHz systems under Windows 3.1. There was a delay between when you hit the key and when the letter would pop up on the screen. Even now, when the system is overloaded this phenomenon occurs. When you are recording music and this happens, it is excruciating because it screws up the timing. You can always shift what you recorded to correct this little time lapse.

Where this latency really rears its ugly head is when you want to monitor what you are recording. If I am recording a bass track on top of the drum track, I will usually turn off the metronome and just listen to the drums to play my bass. If I am sending my bass signal directly into the computer, not playing through my amp, I will not hear what I am playing. If I turn the monitoring on, my bass sound will usually lag by about half-a-second to a full second from when I hit the note to when I hear it. This is completely unacceptable. I deal with it by not monitoring what I am recording. I take some time to carefully get the sound I want from whatever instrument I'm using and then once I am happy with the sound, I record more-or-less blind. I know what notes I am hitting, I can feel the rhythm – the only thing I do not get is the sound. This is a passable solution that works well for me. Of course, if I am recording using my

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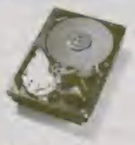

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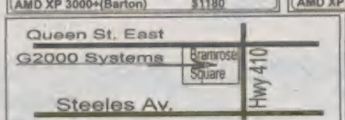

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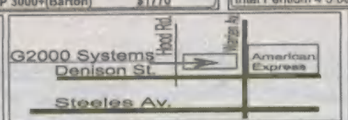

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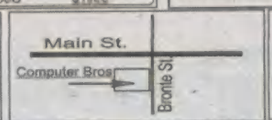

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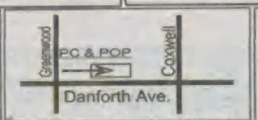

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Digital Shots: Taking it all in

By ANDREW MOORE-CRISPIN

Panoramic prints have gained in popularity in recent years, starting with inexpensive point-and-shoot 35mm cameras, as a standard option in film cameras using the Advantix film systems and more recently, into digital photography.

It used to be that making a panoramic photograph, especially a 360-degree panoramic, required a lot of research and some potentially expensive equipment. There was (and still is) always the option of a 360 panoramic pinhole camera, made out of a coffee can or similar, containing a piece of photographic paper and several small pinholes at intervals around the side. While 360-degree pinhole cameras can be fun to make from a hobby perspective, the results they give are usually less than an accurate representation of the scene. Considerably less.

For the digital photographer, creating panoramic photos still requires some preparation and a little research, but it's much simpler than other options, especially with the increasing popularity of photo stitching software. Photo stitching software takes a group of prints in the order the user specifies and merges them together into a relatively seamless panoramic photo. However, the results out of these software packages depend on the quality of the pictures they are given to work with. The following is a list of ways to get the most out of your panoramic photo software.

Use a tripod

Handholding your camera to take shots to be stitched together later is possible, but is much less exact and, in the case of manually stitching together the photos in *Photoshop* or a similar program, will require a lot more work. In the case of an automated photo stitching software, handholding the camera will make it more difficult for the software to get an accurate match on the scene and may reflect poorly in the finished product.

Think before you snap

If your tripod has degree markings on the head, use these to determine the movements; work out the field of view of your camera in degrees. Allow about a 10 per cent overlap in the pictures (five per cent on either side of the frame), and figure out how far to move the tripod head for each exposure. Leaving some overlap is important, as the picture you see through the viewfinder isn't necessarily the picture that will be taken, and because things are made easier when stitching the pictures back together if there are some margins to work within.

Don't split objects of focus

It won't always be possible not to split objects over more than one exposure. However, if an object in the picture is going to be a focal point, people viewing your finished panoramic print will be more likely to notice stitching marks, if any, on a key object if it was split between exposures. To avoid headaches trying to get the picture to look seamless later, try to think ahead where the joins in the pictures will be, and organize the exposures so that joints are made without having to piece together key objects in the picture. Essentially, try to do as much of the work in camera, before tak-

☛

Digital Shots: Taking it all in

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ing the picture, as possible.

Make the picture worth the effort

Taking pictures of a barren field might be good practice for making panoramic photos, but it probably won't hold too much appeal for viewers. Try to choose a scene where there is more information than just one picture can convey, and shoot away. Some suggestions could include a big bridge, a scenic lookout point, tourist attractions like Niagara Falls or the Grand Canyon, or pretty much anything that has you scanning from side to side, trying to take it all in.

Choose your software

There are a number of commercial packages available, specifically designed to make panoramic photos. These range from completely automated to completely manual, and personal preference is what will make the decision. See the More Info box for some possibilities – most offer a free trial download.

Method of delivery

Making a print of the panorama or creating a banner image for viewing on screen are only two of the options available to digital photographers. For anyone wanting to take panoramic photographs to the next level, by offering them online for viewers to pan and tilt through using a mouse, there are commercial software and Java options available.

Many software suites allow for exporting in Apple's QuickTime VR format for posting VR tours online. ◆

more INFO

Note: Not all of these software packages have been reviewed — use this list as a starting point in your research.

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www.Adobe.com
Making Panoramas the Free Way
vr.albury.net.au/~kathyw/PanoTools/tutorials/panotools1.html
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Musical Odyssey

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amp, I can hear exactly what is being recorded.

The great thing about recording on a computer is you can record as many takes as you like. You can easily save all these takes for later use as well. If you just want to record a few bars of a guitar riff, you can simply hit record and keep playing that riff until you get it right – capturing all the notes and spirit of the riff. A few mouse clicks later, you can isolate this riff and place it where you feel it should go.

Various effects can be added to tracks using the onboard effects menus. Most software packages use a system of non-destructive editing that preserves the original recorded track in its entirety, so all effects and other manipulations do not change the track at all. This is great when you realize that you have gone too far in your mucking about. Another way to do this is to duplicate the track you want to experiment with, paste it in a new track and work on the copy. If you really mess up the track you can always discard it and you will still have the original track.

Just like with recording on tape, recording on a computer is a cumulative process. You build your songs slowly, layer by layer. Computer-based recording allows you to revisit the layers and modify them easily. ◆

Adventures in digital video

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getting up really early – especially in summer. But it's worth it. The air is generally cleaner, the wind generally slower and shadows are long and sculptural in nature, with a good enough contrast for most camcorders to reproduce.

The afternoon's magic hour is often more dramatic. Sure, there is increased pollution, which environmentally is a drag, but visually it does nice things to light. There's often more cloud, too, adding texture to a shot and a nice reflective quality to the light. Colours are generally warmer, with a golden hue.

Remember, it's not exactly sunrise or sunset, but just before or just after, when you can take great advantage of nature's lighting kit.

You can see the effects easily enough – just raise your hand. Check the light falling on your forearm. One side should be brighter than the other, but not blindingly so. There should be contrast and a sense of dimension, but not so one side is blown out and the other pitch black.

Once your eyes are accustomed to it, you will see the magic light and know the time is right. ◆

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22894411

Melodyne offers jaw-dropping power

By NESTOR GULA

There's a lot of cool music audio software out there, but nothing is as cool as *Melodyne*. This software package gives you the power to really delve into what you've recorded – correcting the mistakes or modifying the track in unprecedented ways.

You can load a track in or record directly into *Melodyne*. The program then analyses the track – looking at the pitch and timing of the audio. Once the analysis is complete, usually within a few seconds, you can take that track and muck around with it as much as you like.

Audio correction

If you are familiar with MIDI, then you most likely will know what a Piano Roll is. This is like a continuous stretch of graph paper where each horizontal line represents a key on a piano and the vertical lines represent time – either whole notes, eighth notes or whatever you set as your quantize factor. The graph is blank except for where the notes are played. It's like the roll in a player piano. You can easily correct wrong notes here.

Until *Melodyne* came around, this was impossible with audio files. When you open an audio file in *Melodyne*, you get a graph that is similar to the Piano Roll in a MIDI software package. Instead of having lifeless blocks describing the notes, there are dynamic forms that describe the volume and pitch changes of the note. (If you listen to a note played or sung it is rarely flat but has inner dynamics.)

If you sang a note wrong, you simply grab the errant note and move it to where it should be. You will not be able to tell that the note was sung wrong. The transition between notes is constructed by *Melodyne* so that it makes sense musically. You can, and probably will, stretch the credibility of the human voice by moving notes drastically from one extreme to another. This sounds weird but still retains the essence of your voice.

But correcting your errant notes is just one thing this amazing program will do. *Melodyne* works great with either voice or instruments. I tested it with voice, guitar (acoustic and electric), bass, violin and harmonica. If you have sung or played a piece of music in one key and now you would like to switch keys – no problem. This is an easy fix. Slowing down or speeding up what you recorded is also just a few clicks away. If you think that the singer has too much vibrato in the voice, you can take it out. If there's not enough, you can add some.

A very cool tool is the Formant Shaping tool. This alters the shape or timbre of the audio. This can be used to add wonderful colour to the altered audio. You can make the male voice sound like a female voice and vice versa. This is still not perfect, but when applied to a violin you can make it sound like a viola and even a cello given the right octave.

All this coolness comes at a price: $1,243 for a standalone version, called *Studio Edition*, that has unlimited tracks and works with audio at sample rates of up to 192 kHz and at 32-bits. This version has 500 levels of undo. More affordable is the *Cre8* version (get it – create) that lists at $544 and is limited to eight tracks of audio at 48 kHz and 16 bits. This latter version has but one undo. The price might seem high, but then it is in the range of *Photoshop* and other professional programs. Given what this program can do, it is a bargain. If you want to check *Melodyne* out go to the company's Web site (www.celemony.com) to find demo versions and sound files. ♦

more INFO

Melodyne
***Studio Edition:* $1,243**
***Cre8:* $544**
Celemony Software GmbH
www.celemony.com

Requirements:
Mac — PowerMac, Mac OS 9 or X, 128 MB RAM (256 or more recommended)

PC — 400 MHz processor (1GHz recommended), Windows 98/ME/2000/XP, 128 MB RAM (256 MB recommended).

***Melodyne* supports DirectX, SoundManager, CoreAudio and ASIO2 for sound I/O and many audio formats (WAV, AIFF, SD2, SND, AU).**

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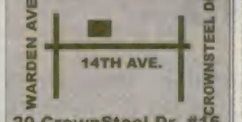

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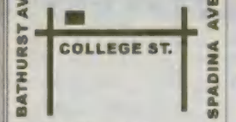

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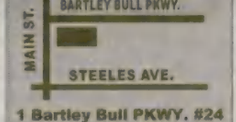

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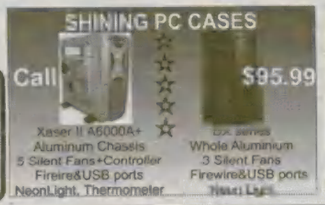

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Usable all-in-one offers a lot of options

By MARA GULENS

I'm still trying to figure out exactly why this all-in-one intimidates me.

It could have something to do with the size. This looks and feels way more commercial than other units I've reviewed and overwhelms my work area in ways others have not. At $800, it also could have something to do with the price.

The HP Officejet 7130 is intended for more than just typical home office use and has small business written all over it.

But then, what is small business? The nursery school my daughter attends uses a similar HP all-in-one, and there are only two people – mom and pop – using it. It's definitely a booming small business – hundreds of kids revolve in and out the door each week. But when it comes to printing, scanning and faxing, the nursery school owners are no more technologically savvy than anyone working from home. No matter who the technology is intended for, it has to be usable by anyone.

Does the HP Officejet 7130 meet those criteria? Basically, yes, and the nursery school owners say they love their unit, although they haven't tried everything.

That may well explain the intimidation factor for me, too. This machine lets you do so much that you really need to expand your wants and desires – and know-how – to keep up with it all. There are all the standard items – fax, scan, copy and print, but you can also print double-sided, print directly from digital camera memory cards and print high quality colour prints.

How it does all that may leave the user slightly perplexed. What's also initially quite mind-boggling – and is explained by the fact the unit is so all-out digital – is that it plays around with up and down in ways I've never experienced. For example, put a piece of paper on the glass facing east-west, but the copy comes out north-south. Insert a stack of new paper, but place it good side down. Ditto the original when you're planning to copy double-sided. In fact, it takes a while to feel comfortable with the various openings and ins-and-outs of this unit, all because it's doing so much in the confines of one relatively little box.

Like virtually all all-in-ones these days, the HP Officejet 7130 allows you to do what you want either via the computer or via the front panel. In a weird way, this both lets you appreciate how far we've come since the days of dot-matrix printers and is a reminder of how nice it is to just push a button without logging on.

Initially, I lost a week of review time while the unit was hooked up to my work machine – a Mac. On the Mac, the interface was a boring box that left me with more questions than answers, and scanning was a chore.

When I moved the HP Officejet 7130 over to the PC, I started to get a feel for what this all-in-one is truly capable of. Up popped the cheerful HP Director with its five interconnected balloons that let you view images, fax, scan pictures, copy or scan documents.

I started scanning 100-year-old postage-size photographs in super high resolution (scanning these was only something I considered once I received the unit). Soon I had a beautiful, glossy sepia print of my grandmother when she was younger than I am today. Not a reason for a small business to buy this machine, but a definite advantage.

Given the smarts of this machine, readers will probably not be surprised to discover that the two scan settings – scan pictures and scan documents – really mean what they say. My favourite test document is the Enbridge gas bill. Scan it as a picture and print it out, and you get an absolute reproduction. Scan it as text and send to Wordpad, and you get a desperate attempt to make sense of the letters and numbers. Oops – not quite. Scan in a regular text document, on the other hand, and you get pretty much what you put on the glass. ◆

more INFO

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Dealing with the legacy of the font wars

By JEFF CHAPMAN

The first time small publishers stumble upon a Web site full of free TrueType fonts, they're likely to spend hours downloading and installing hundreds of TrueType knockoffs of copyrighted fonts. Why not? The TrueType knockoffs look like the fonts professionals use, and their names often differ by only a few characters.

As similar as they sound, there are a few differences, and these are rooted in the great font wars of the early '90s. At the dawn of that decade, Adobe PostScript ruled the desktop publishing world, and Adobe wouldn't share the specifications for its Type One font technology with anyone. Between 1989 and 1992, however, Apple and Microsoft teamed up to break Adobe's monopoly, through the development of a new font technology called TrueType, and Adobe responded to the challenge by opening its Type One specification to competing type vendors. The battle of the rival typeface technologies was on: Adobe had the advantage of near complete dominance of the printing business, while Apple and Microsoft had the advantage of near complete dominance of the operating system business.

Whereas Type One typefaces each employ two files (a bitmapped image for output to the monitor and an outline font for output to the printer), TrueType technology uses a single file to output fonts to either the monitor or the printer. TrueType fonts are less mathematically complex than Type One typefaces and thus use less processing power. They are also easier to install and easier to create – so easy to create, in fact, that amateur type designers have released thousands of cheap or even free TrueType fonts that are highly reminiscent of various expensive, copyrighted, Type One fonts. The names of these TrueType fonts are also highly reminiscent of the original typefaces – "Dawn Castle" sounds like "Dom Casual," "Architect" recalls "Tekton," and "Homeward Bound" evokes memories of "Hobo," even though we have no idea where the original hobo was heading.

There are a few ways that you can use affordable or even free TrueType fonts at home, while making life easier for you and your printer.

While free is a very nice price, there are some problems with the knockoffs. TrueType isn't necessarily an inferior technology, but almost all high-end type foundries prefer to create Type One fonts exclusively, leaving the conversion to the lower-class TrueType format to amateurs and creating the impression that TrueType fonts look worse than Type One fonts. Because the individuals who create TrueType fonts tend to have less experience than the people who create Type One fonts, TrueType fonts are often imperfect. A TrueType font that looks just like its Type One cousin at regular sizes may look much worse at very small or very large sizes. A sloppily constructed TrueType version of a Type One font may lack numerals, punctuation, special characters or even lower-case letters. Since the independent designers of TrueType fonts have generally failed to respect naming conventions, the Web is full of dozens of different versions of fonts like Helvetica, Arial and Garamond – all of which look and behave slightly differently from one another.

More importantly, TrueType fonts are not at all popular among print shops and service bureaus, 90 percent of which use Adobe PostScript printers and output devices. Almost all print shops specify that they prefer Type One fonts to TrueType fonts, and many levy additional charges for the potentially arduous task of converting jobs from TrueType to Type One. A few refuse to deal with TrueType fonts altogether, and advise their clients to disable TrueType fonts on their machines and purchase a stable of solid Type One fonts.

Unfortunately, Type One fonts are priced for professional and institutional use rather than home use, and not all small publishers can afford to lay down hundreds of dollars every time they want a new font. There are a few ways that you can use affordable or even free TrueType fonts at home, while making life easier for you and your printer. Familiarize yourself with standard Type One fonts. Try to use good TrueType fonts that mimic common Type One fonts, rather than exotic ones, and know the names of the fonts you're imitating. Try to download an entire font family (normal, bold, italic, bold-italic, etc.), instead of just downloading the regular version of the font and asking your word processing or page layout software to stylize it for you. Software does its best to simulate italic or bold versions, but it rarely does it the same way the designer of the Type One font or the original typographic artist had in mind.

Incidentally, Adobe, Apple and Microsoft have recently declared a truce in their battle: *Adobe Type Manager* now supports TrueType fonts, and *Adobe Type Manager* is included free of charge with the newest versions of the Windows and Mac operating systems. Unfortunately, the confusion created as a result of the font wars is here to stay. ♦

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Olympus C-5050 impresses with options

By NESTOR GULA

I first saw this camera at a press demo event about a year ago. It wasn't even a camera back then – just a sculpted block of aluminum. I read about the features it was to have and took another gander at the camera-to-be. I was impressed.

When I got the camera for real I was still impressed. The C-5050 has a 5-megapixel sensor and delivers 2,560x1,920-pixel images. The lens is fast (f/1.8) and boasts 3x optical zoom (equivalent to a 35-105mm lens on a 35mm camera). The shutter speed starts at a quick 1/2,000 and goes to a long 16 seconds, giving nice options for freeze-frames or time exposure.

A handy feature is that it accepts three types of memory cards: xD, SmartMedia and CompactFlash. There's a built-in flash, or you can use the hot shoe that accepts regular flash units. There's a small optical range finding viewer, or you can use the 1.8-inch, colour LCD display. This screen tilts down slightly for overhead shots and 90 degrees upward for low level photography. To power the C-5050 you will need four AA batteries or two CR-V3 battery packs. Fortunately, the camera comes with a set of NiMH rechargeable batteries and a charger – these provided plenty of long lasting power for the duration of my test.

There are a host of manual overrides that you can easily invoke using the screen and menu system. You can easily keep this camera in Program mode and use it like a point-and-shoot camera – but that's not the point of the C-5050. There are the usual aperture priority, shutter priority, and manual exposure modes plus five preset Scene modes and a My Mode for user-defined custom settings. You can switch between Spot, Multi-Spot or ESP multi-patterned metering systems. In short, there are enough options to keep you occupied for years on end.

The C-5050 is a fantastic camera – the images I took, under various lighting conditions, inside and outside, were consistently excellent. The fast lens allowed me to take indoor photographs without the flash with good results. The camera's black magnesium alloy finish and rubber grip felt good in my hand and all the buttons were logically located.

Using the camera, I did find some faults that took the sheen off the C-5050. Although I really liked the lens, I did not like the zoom feature. It was a power zoom that had to be activated using a switch in front. The switch was well located but the zoom was a bit jerky and hard to use. It sounded very rough and mechanical. I would have preferred a manual zoom that could be turned by hand, like on most single lens reflex cameras. The complexity of the camera can be taken both ways. On the one hand, to truly learn all its functions requires a considerable amount of time. There is a small manual, but the full manual is a PDF on a CD and takes up over 200 pages.

True photo buffs will love this camera because of the amount of manual control they can exercise. This is definitely a camera you will grow into, avoiding the itch for a new camera within a few years. It is solid and the images that it delivers are great. ◆

more INFO

C-5050 Zoom
$1,199.99
Olympus
www.olympusamerica.com

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REVIEWS

Lexmark X5150 All-In-One

By DAVE CHAPPELLE

Given the choice to buy one device that can scan, copy and print satisfactorily and save space at the same time, it's easy to understand the popularity of all-in-one devices. We've even seen subway passengers carrying home their all-in-one purchases. Try getting on a subway with a scanner, copier and printer, each in a separate box.

Printer manufacturers expect sales of multifunction devices to remain strong. So Lexmark looks to improve on last year's impressive X85 All-In-One, putting speed, scanner and resolution enhancements in the brand new, top-of-the-line X5150. Maximum resolution is 4,800x1,200 dpi, and ink drops can vary from 3 to 10 picolitres. The scanner reduces to 25 per cent and enlarges up to 400 per cent.

If you only want colour copying, you don't even need to attach a computer. The device offers one-touch computerless copying, but to scan things into usable digital form for e-mailing or storing, you'll need a computer and if you want faxing capability, that computer will need a modem.

From the top right panel, you can control pretty much everything to do with copying and starting a scan or fax. There are separate buttons for colour and black copying and for enlarging and reducing. Another button offers three choices for photo scanning. Instructions shown on a 1.3x5 cm LCD screen guide you through each process.

When used with a computer, the software offers short tips, including the importance of selecting the correct paper for the print job. The X5150 senses paper type automatically, saving you from manually setting it up and avoiding accidents that would happen if you forgot.

Input capacity is 100 sheets; output 50 sheets. With input and output trays fully extended, the X5150 measures 51x48x32 cm (DxWxH). The lid lifts up high enough to allow a box or other object to be placed on the 30x22 cm scanner bed.

more INFO

X5150 All-In-One
Lexmark
$249
Cartridge prices: $51.99 (black), $59.99 (standard colour), $73.99 (high-yield colour)
www.lexmark.ca

Requirements
Mac OS 9.2.2: G3 300 MHz CPU with built-in USB support, 64 MB RAM, 250 MB disk space

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Windows XP: 300 MHz CPU, 128 MB RAM, 500 MB disk space

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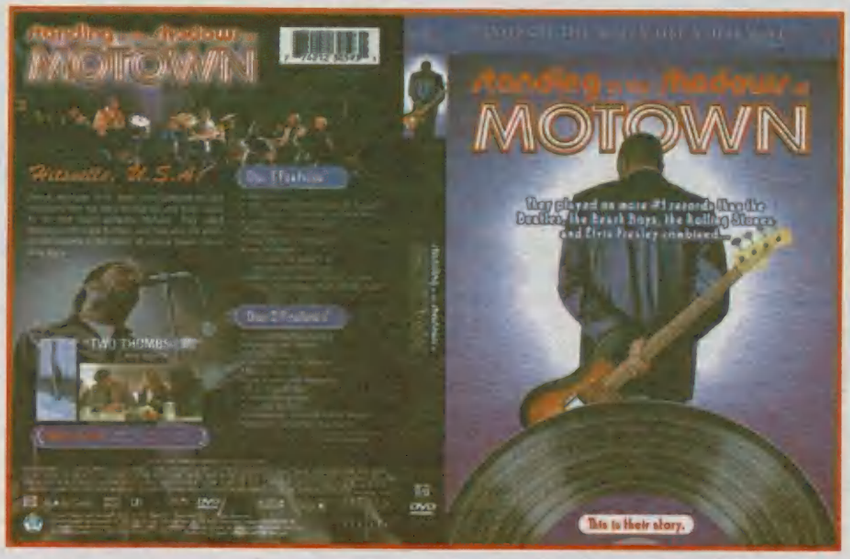
A DVD set to please geeks of all kinds

By EMRU TOWNSEND



Extras have always been part of the appeal of DVDs: Directors' comments, supplemental audio, alternate angles and all those goodies that make film geeks like me weak in the knees. Since the early days of the DVD, computer geeks have also drooled at the prospect of extras created specifically for DVD-ROM-equipped computers – but let's face it, they've mostly been disappointing. Honestly, how exciting are the games and screen savers that come with such discs as the Powerpuff Girls movie? (And are they really special when they could just as easily have been made available from Cartoon Network's Web site?)

I'm happy to report that there's finally a DVD release that satisfies both my film and computer geek personas: Artisan's Grammy-winning documentary *Standing in the Shadows of Motown*. (A tribute to the long-ignored Funk Brothers, the session musicians that defined the Motown sound, the disc also pleases my inner music geek.)

The reason for all this geeky joy is that you get the movie twice in one package: Disc 1 contains a regular DVD movie, playable on any DVD player. Disc 2 contains the same movie, but it's playable only on a computer equipped with Windows Media Player 9. More to the point, the Windows Media version of the film is encoded at a resolution of 1,024x576, 1.7 times as many pixels as DVD's 720x480. The result: *Standing in the Shadows of Motown* plays on a computer screen with an unparalleled crispness.

Standing in the Shadows of Motown is Microsoft's most public aspect of its efforts to take the Windows Media audio and video formats into the mainstream. Windows Media Audio support has crept into most digital audio players and a handful of DVD players over the years, but the release of the Windows Media 9 Series (WM9) format has spearheaded a major push into all aspects of the media distribution and content creation industries, from digital projection systems in theatres to desktop video editing and conversion software.

It's hard not to be seduced by the clean, sharp image of the WM9 video, but there are a few things that serve as reminders that this is still new territory. First is the interface: There isn't much of one. Underneath the video window are a few buttons for basic navigation; right-clicking produces a few more options (like full-screen video), but that's it. The ornate menus that DVD connoisseurs have become accustomed to are nowhere to be seen. (Three of the formerly online-only BMW short films are also part of the package; their menu screen is a little bit fancier.)

Another problem is that the WM9 version of the movie is tied to the computer you first play it on. Once you click Play, the player connects to the Internet and transfers digital rights management (DRM) information; thereafter, you can't watch the movie on another computer.

Finally, there's the issue of system requirements. It's understandable that high-resolution, full-motion video would require a reasonably fast processor for smooth playback – in this case, a 1.4 GHz Pentium 4. But you'd have a hard time finding that out without access to a publicist; it's not mentioned anywhere on the DVD case, and you won't find it on Microsoft's Web site or the film's official site. Odds are, your average video store clerk couldn't tell you either.

The next DVD to get the WM9 treatment is the June re-release of *Terminator 2*; while I doubt the DRM issue will go away – Hollywood is notoriously overprotective when it comes to digital media – I hope that some of the other kinks will be worked out so that this slick new technology is as consumer-friendly as, well, DVDs. ◆

more INFO

Standing in the Shadows of Motown
Street price: $24.99
Seville Pictures
www.sevillepictures.com

Requirements:
Windows 98 SE/ME/2000/XP

Lexmark X5150 All-In-One

continued from page 36

Claimed printing speeds are 19 pages per minute (ppm) in black and 14 ppm in colour, in draft mode. A two-colour text PDF was completed in 1 minute 5 seconds, and we ran a full-colour PDF art image at approximately 50 per cent coverage on glossy photo paper in 3 minutes 46 seconds. Quality was superb. Claimed copy speeds are somewhat lower, at 16 copies per minute in black and 11 copies per minute in colour.

A point to remember when comparison shopping for replacement inkjet cartridges: When you buy a new Lexmark inkjet cartridge, you are also buying a new print head, thus maintaining quality. The X5150 uses two cartridges, one black and one colour. Colour cartridges are available in standard and high-yield versions – at 15 per cent coverage, the standard cartridge is rated for 450 pages, the high-yield cartridge for 650 pages. The black cartridge is expected to yield 600 pages at 5 per cent coverage.

If we had to dig to find a complaint, the only thing we could mention is the absence of a telephone dialer for the fax; you must use software. But that's minor, considering the price, as colour faxes aren't that popular, and this unit does everything else that a typical home user might want, and does it very well. The results we obtained were excellent. ◆

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PocketPC for less: Dell Axim X5

By ANDREW MOORE-CRISPIN

Which PDA operating system you prefer depends a lot on the way you work. I am used to the Palm OS and find it intuitive and simple; subdued but highly functional. Making the shift from Palm OS to PocketPC presents untold problems.

With that in mind, we had an extended trial period with the Dell Axim X5. Any faults that the Axim PDA suffers seem to be at the hands of the operating system, which is cumbersome and frustrating, especially for anyone used to a different OS in their palmtop devices.

The layout of the Axim X5 is excellent, with a scroll/action switch that moves up and down to scroll within documents and Web sites, or in the various directories for choosing applications. The scroll switch can also be pushed in and acts as an action key. The switch is on the left hand side of the device and affords one-handed operation of the unit by both left- and right-handed people, by using either the thumb of the left hand or the middle finger of the right.

Beneath the scroll switch is a one-touch record button that allows for easy recording of voice memos, which are played back with surprising quality through the small speaker on the front or through stereo headphones plugged in to the headphone jack on the top of the unit.

The X5 is Dell's first entry into the PocketPC market and comes in two varieties: A 400 MHz unit with beefed up RAM and ROM for $499, and a less expensive but still very functional 300 MHz unit for $379. The 400 MHz X5 tested comes with an attractive desktop charging and synchronizing cradle. The X5 slips into the front slot and, as a nice added feature, there is a second slot behind it for charging a spare battery sans PDA.

The X5 is rated for eight to 10 hours of use on a full charge. Presumably this rating is taken using moderate use – no movie playing, and with the processor scaled back to 200 MHz (which happens automatically when the PDA is removed from the charging cradle, but can be changed) and the LCD screen's brightness set low. In our tests, the X5 easily lasted throughout the day, but battery life starts to fall when playing media files like MP3s and movies. However, it still offered up an impressive seven hours of use, alternating between media playback and regular, everyday use like using the appointment book, phone directory, or scribbling short notes, before giving the low battery warning.

Text input is very similar to Palm's Grafitti method, but is a marked improvement. It does a better job of recognizing keystrokes, and since the text entry window is part of the LCD screen, shows users what they're entering as the screen traces the stylus strokes with a black line. Other text entry options include an onscreen keyboard; Letter Recognizer, which is similar to Graffiti but offers spotty results and Transcriber, which allows users to write anywhere on the screen. Transcriber does a good job of converting writing to text if your writing style fits into its parameters; mine didn't, and I had more than a few "beat up Martin / eat up Martha" moments, for you *Simpsons* fans out there.

Moving from my old Handspring Deluxe – which is under-powered by today's standards but still does most everything I need – to the Dell Axim X5, it's hard not to be impressed with the 3.5-inch 65,000-colour LCD screen, 400 MHz XScale processor, 64 MB SDRAM and 48 MB flash ROM storage on the model tested. These features and others – like the side Secure Digital storage expansion slot and top Compact Flash Type II slot for expansion modules – are impressive, but for those only looking for a digital alternative to a paper day planner, they're overkill. However, someone looking for a powerful device that can rightly be called a PC in your pocket may find that Axim fits the bill as well as other PocketPC-based PDAs, at a price point significantly lower than others on the market. ✦

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2. This contest is open to amateur unsigned acts. All genres of music will be considered. Employees and families of *Toronto Computes!*, its parent company, subsidiaries and affiliates are not eligible. Contestants must be Canadian citizens or have landed immigrant status.

3. Winners will be chosen by a select panel of judges and will be judged based on melody, composition and lyrics (when applicable). The quality of performance and production will also be considered.

4. The first place winner will have first choice from the prize pool. The second place winner will have the second choice. The third place winner will have the remaining prize.

5. By submitting compositions and the signed entry form to this contest the entrant claims that their composition is original work and he/she holds all rights to the composition. The contestant also agrees to give *Toronto Computes!*, its parent companies and subsidiaries the non-exclusive right to use the compositions for future advertising and publicity purposes without additional compensation for a period of two (2) years from the date of the contest's closing date.

7. All entries must be postmarked by 5 PM EST June 30, 2003. Winners will be chosen by July 15, 2003. Winners will be contacted for their choice of prize. Results will be announced in the August issue of *Toronto Computes!*

8. All decisions of the judges are final.

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Goodies at this year's Electronic Entertainment Expo

Part 1

By CHRIS TALBOT

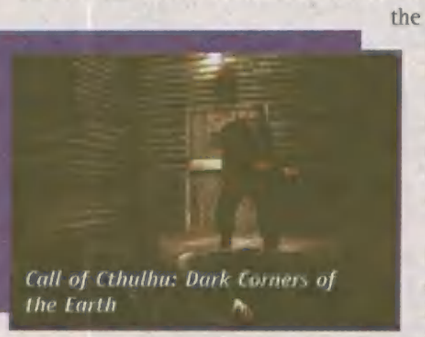
During some years at the annual Electronic Entertainment Expo, attendees walk away talking about a sure winner – an obvious choice for game of the show. Although E3 2003 had some spectacular games and some unexpected announcements on all gaming fronts, *Toronto Computes!* staff couldn't decide on such a clear-cut winner.

Game developers and publishers were showing off better than 1,000 titles for PC and Macintosh computers, as well as all current and recently-announced consoles and handheld gaming platforms. Still, a few titles stood out as some of the best games of the show (but gamers will have to wait at least a few months for most of the titles to hit store shelves).

In no particular order, here are some of the cooler PC games found at E3 2003:

Call of Cthulhu: Dark Corners of the Earth

Currently under development by Headfirst Productions, *Call of Cthulhu: Dark Corners of the Earth*, which was first announced at last year's E3, has finally found a new publisher. Bethesda Softworks, the publisher behind the likes of 2002's RPG hit *The Elder Scrolls III: Morrowind* has acquired the publishing rights, and the development team was showing of the PC version of the title.


Call of Cthulhu: Dark Corners of the Earth

Based on the writings of the early 20th Century author H. P. Lovecraft, who created a series of stories that are now referred to as the Cthulhu Mythos, *Dark Corners of the Earth* is a first-person horror game that isn't for the weak-stomached. Aside from the grotesque scenes and horrific monsters, the main character in the game, a cop turned private investigator, will slowly experience the effects of insanity as he uncovers facts that quite clearly show the world isn't at all like humans believe and that alien deities control much of reality as we know it.

The game looks to be very far in its development. Graphically, it's superb, and some of the horror scenes games media got a taste of are stomach-churning. Barring other delays (the game was delayed already because of a problem with its original publisher), the game should be out in early 2004.

XIII

Ubi Soft has a history of great games – the *Rayman* series, the games featuring Tom Clancy's name, among others. This year, the favourite of the Ubi Soft booth was *XIII* (i.e. 13).

Based on a graphic novel of the same name, *XIII* is a cel-shaded (read: Looks like a cartoon) first-person shooter that follows the exploits of a man with amnesia who is being hunted as the prime suspect in the assassination of the president. From what we saw of the playable levels available at the show, *XIII* is a stylish game with typical FPS gameplay. What sets it apart is the attempt by the developers to make it feel like gamers are playing within a graphic novel.

For instance, comic book-style words will float by on screen (i.e. "Nooooo!) when an NPC gets fragged. Environments will be interactive and destructible. Best of all, the game will be multiplayer over LAN and the Internet, and it will ship in October with a multiplayer level editor.

Tron 2.0

Fans of *Tron*, the early 1980s Disney flick about the creator of the *Tron* program getting digitized and stuck in his own computer program, will soon have a sequel in the form of a video game (no word lately on the sequel movie, *Tron: Killer App*). Announced last year, *Tron 2.0* will take place 20 years after the events of the film and will follow the adventures of Jet Bradley, the son of the *Tron* program's creator (Alan Bradley).

The story will involve corrupted systems and a megalomaniacal madman at the centre of the plot, but the single-player element isn't the most attractive part of this game. PC gamers will be able to take *Tron* 2.0 into multiplayer heaven with mini-games based on the movie's discus throwing and the popular light-cycles.

Tron 2.0

Toronto Computes! has covered this soon-to-be hot game in previous issues, and some of us have been looking forward to it. Gamers will get a chance to jump into the world of *Tron* in August (finally).

EverQuest II

The original *EverQuest* massively multiplayer online role-playing game has set many records for online gaming. Sony Online Entertainment will launch the sequel to the game later this year. Set centuries after *EverQuest*, there are a number of plot changes in the game, including the apparent destruction of the moon, Luclin.

Games media who dropped in on the SOE booth were treated to a bar brawl, a tour of the City of Freeport and a battle with a great red dragon. Aside from a few minor changes on the display itself, the most noticeable change in the game is the upgraded graphics. The game looks on par with many offline PC games, but that also means it's going to require a fairly decent computer to run.

Gamers who want to jump in on the ground floor can do so when *EverQuest II* launches in November, but potential players should be prepared to consider a computer upgrade. Minimum RAM requirements are expected to be 512 MB and recommended will be upwards of a gigabyte of RAM.

Halo: Combat Evolved

The top Xbox FPS is *Halo: Combat Evolved*, and the game will be coming to PCs this September. The PC version of the game will feature the same story and the same levels as the Xbox version, but enhanced graphics and the addition of multiplayer over LAN and the Internet will make *Halo* a smarter purchase on PC than on Xbox.

Originally designed and developed by Bungie, the PC version of the game is actually being developed by Gearbox Software. From my time with it (using my beloved WASD mouse-and-keyboard configuration), it looks like Gearbox took all that was good out of the Xbox title and plopped it onto the PC. ◆

Free downloads add longevity to games

Don't shelve that computer game you just finished – there may be some life in it yet.

Hundreds of today's PC games feature downloadable add-ons that extend the game's replayability. These include bonus levels, missions, maps, weapons, characters and even game modifications ("mods") that alter the gameplay itself.

These "extras" are developed by the original game maker, created by gamers with free tools available online or bundled with the game itself.

Click here to play again

Fans of Infogrames' *Neverwinter Nights*, a popular Dungeons & Dragons-based role-playing game, can download free "modules" that add new chapters to the game. There are close to 2,500 free modules available at the BioWare community Web site (nwn.bioware.com), the Edmonton, Alberta-based developer of the game.

BioWare has also created a dozen or so of its own in-house add-ons, including digital diversions like Neverwinter Chess and Blackjack Inn, and more meaty adventure campaigns such as Witch Wake Part One: The Fields of Battle.

Strategy fans who own Microsoft's million-unit-selling *Age of Mythology* can also download and play a completely new campaign entitled, The Golden Gift. This freebie was created by Ensemble Studios (www.ensemblestudios.com), the original developer of the game.

This add-on follows the adventures of two dwarven brothers, Brokk and Eitri.

As with all downloadable add-ons, the full version of the game is required to play this complimentary campaign. Players can download the 10 MB giveaway at Microsoft's official Web site for the game: www.microsoft.com/games/ageofmythology.

Electronic Arts' award-winning action war game, *Battlefield 1942* (www.battlefield1942.com) has also spawned dozens of downloadable user-made modifications, including the popular The Desert Combat (www.desertcombat.com), which turns the game into a modern warfare simulation.

Keep in mind some user-made "mods" have become international gaming phenomena, such as *Half-Life's Counter-Strike* (www.counter-strike.net).

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CYBERPLAY

Game On!
continued from page 41

How to make an add-on work

With most games, players must place the downloaded file into the appropriate subdirectory within the game folder, usually called "Levels," "Maps," "Extras" or "Modules." It'll vary from game to game, but the disc's "readme" document or help file will usually explain what to do once the file is downloaded.

In other cases, such as with *Age of Mythology*, the new files install automatically when the gamer double-clicks the downloaded add-on. Once the game is started, there will be a choice to start the new campaign, level or modification. Not sure if your favourite computer games offer free downloads? The best place to start is the game's official Web site.

What you need to get going

I often receive e-mail from computer users asking what they need to play the latest games.

Here's a brief checklist to get the most out of your gaming experience:

- A Windows-based PC ($800 on the low-end) with at least a Pentium III 500 MHz processor. A faster computer is recommended, such as a Pentium 4 at 2.0 GHz.
- Windows XP (Home or Professional) is the most stable operating system, but Windows 98 or the Millennium Edition are also fine.
- A Mac is a slick machine, but there aren't nearly as many games for it compared to the Windows operating system. Plus, they tend to come out months after the Windows version.
- At least 128 MB of RAM and a decent video card (16 MB or 32 MB). Better yet is to have 256 MB of RAM, or more and a 64 MB video card.
- Though this software usually ships on most computer game CD-ROMs, download the latest version of Microsoft DirectX (www.microsoft.com/windows/directx), which helps provide smooth graphics, animation and sound.
- A 33.6K or 56K dial-up connection is sufficient for most online puzzle, card and board games, but a broadband connection is needed for *EverQuest* or *Battlefield 1942* or any other graphic-intensive action or role-playing game. Broadband usually costs $40 to $50 a month.
- Some games are best played with a controller, such as a flight stick for an aerial combat simulation like Microsoft's *Combat Flight Simulator* series or a steering wheel for a driving game such as *NASCAR Thunder 2003*. These can cost anywhere from $50 to $200 and can be attached to the PC via its USB port. ◆

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- 256Mb DDR RAM, PC2700, 184Pin RAM Memory
- Economy Mid-Tower 6 Bay ATX Case
- Cyberzone True 300W Power Supply w/ Dual fans
- 2- USB Ports, 1- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- On-Board AGP 3D Video w/ 64Mb Buffer
- On-Board PCI Stereo Sound w/ Surround Sound
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- Microsoft Compatible Serial Mouse w/ Mouse Pad
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AMD Athlon XP-2200+	$774.99 or $29/mth
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AMD Athlon XP-2500+	$844.99 or $31/mth
AMD Athlon XP-2800+	$984.99 or $36/mth
AMD Athlon XP-3000+	$1119.99 or $41/mth
Intel Celeron-1.7GHz	$734.99 or $27/mth
Intel Celeron-2.0GHz	$754.99 or $28/mth
Intel Celeron-2.2GHz	$774.99 or $29/mth
Intel Celeron-2.4GHz	$799.99 or $30/mth
Intel Pentium 4-1.8GHz	$829.99 or $31/mth
Intel Pentium 4-2.4B-512k	$879.99 or $32/mth
Intel Pentium 4-2.5B-512k	$919.99 or $34/mth
Intel Pentium 4-2.6B-512k	$924.99 or $34/mth
Intel Pentium 4-2.8B-512k	$1019.99 or $38/mth
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- Rockwell 56K Int. Voice/Fax/Modem v.90 (PCI)
- On-Board 10/100 PCI Full Duplex Network Adapter
- Samsung 753DF 17" Digital .20hdp CRT Monitor, Flat
- Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- Logitech Optical Mouse w/ Wheel w/ Mouse Pad
- MS Windows XP Home OEM w/ CD and Manual
- **5 Years Labour & 1 Year Parts Warranty**

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AMD Athlon XP-2400+	$1179.99 or $43/mth
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AMD Athlon XP-3000+	$1484.99 or $54/mth
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Intel Celeron-2.4GHz	$1149.99 or $42/mth
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- 80Gb ATA-100 Hard Disk Drive @ 7200RPM w/ 8Mb
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- Samsung 950B 19" Digital .22hdp CRT Monitor
- Keytronic 104 Enhanced Soft-Touch Win 95 Keyboard
- Microsoft Wheel Mouse Optical Mouse w/ Mouse Pad
- MS Windows XP Home OEM w/ CD and Manual
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Intel Pentium 4-2.5B- 512k	$1769.99 or $59/mth
Intel Pentium 4-2.6B- 512k	$1864.99 or $62/mth
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- 512Mb DDR RAM, PC3200, 184 Pin RAM Memory
- Nest Mid-Tower ATX Case w/ Window and Neon Lights
- Enlight True 420W ATX Power Supply w/ 2 Fans
- On-Board SATA Raid Controller & Ultra/133 Support
- 6- USB Ports and 4- 1394 Firewire Ports
- Sapphire Radeon 9700 w/ 128Mb & DVI, TV-Out
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- Keytronic KT800 104 Black Soft-Touch Keyboard
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AMD Athlon XP 2400+ @ 266Mhz (Socket A)	see web
AMD Athlon XP [illegible] @ 333Mhz (Socket A)	S see web
AMD Athlon XP 2700+ @ 333Mhz (Socket A)	see web
AMD Athlon XP [illegible] @ 333Mhz Barton (Socket A)	S see web
AMD Athlon XP 2900+ @ 333Mhz Barton (Socket A)	S see web
AMD Athlon XP 3000+ @ 333Mhz Barton (Socket A)	S see web
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Intel Pentium 4-2.8-GHz @ 533 Mhz (S478) 512k	S see web
Intel Pentium 4-2.8-GHz @ 800 Mhz (S478) 512k	S see web
Intel Pentium 4-2.8-GHz @ 533 Mhz (S478) 512k	S see web
Intel Pentium 4-2.8-GHz @ 800 Mhz (S478) 512k	S see web
Intel Pentium 4-3.0-GHz @ 533 Mhz (S478) 512k	S see web
Intel Pentium 4-3.0-GHz @ 800 Mhz (S478) 512k	S see web

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Maxtor 250GB ATA/133 7200RPM Hard Drive w/ 8Mb	S $474.99
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Asus v9480/TVD GeForce 4 Ti4800 128Mb DDR Video In/Out	B $249.99
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ATI Radeon 8100 w/ 64Mb DDR AGP w/ Video Out (Sapphire)	$89.99
ATI Radeon 9100 w/ 128Mb DDR AGP w/ Video Out (Sapphire)	$114.99
ATI Radeon 9600Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N see web
ATI Radeon 9600Pro w/ 128Mb DDR AGP w/ Video Out	NB see web
ATI Radeon 9700 w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N $324.99
ATI Radeon 9800Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N see web
ATI Radeon 9800Pro w/ 128Mb DDR AGP w/ Video Out	NB see web
ATI All-in-Wonder Radeon 7500 w/ 64Mb AGP DDR	$169.99
ATI All-in-Wonder Radeon 9000Pro w/ 64Mb AGP DDR	NB $249.99
ATI All-in-Wonder Radeon 9700Pro w/ 128Mb AGP DDR	NB $499.99
ATI All-in-Wonder Radeon 9800Pro w/ 128Mb AGP DDR	NB see web
Matrox Millennium P650 DH/DVI w/ 64Mb	see web
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Delta Force game looks better than it plays

By TED KRITSONIS

After a six-month delay, NovaLogic has finally released *Delta Force: Black Hawk Down*, setting out to recreate the lawless war zone that was Somalia in 1993, while making the case that the US intervention was a success, rather than the failure many believe it to be.

In 1993, Somalia had not had a central government for over two years. Famine gripped the population, claiming 300,000 lives, while rival clans fought for control of the country, especially the capital, Mogadishu. United Nations relief workers increasingly came under attack by Mohammed Farah Aidid's Habr Gedir clan militia, prompting Washington to send US Task Force Ranger and Delta Force Special Forces units for the sole purpose of capturing or killing him.

This is where *DF:BHD* begins. Missions are spread throughout parts of the country controlled by Aidid's militia, which includes the heart of Mogadishu. From there, you go on missions to destroy weapons shipments, protect UN convoys and even eliminate Aidid's radio broadcasting station.

The pinnacle of the game, of course, is the battle in Mogadishu on October 3, 1993, when two Black Hawk helicopters were shot down, turning a simple mission – to capture two of Aidid's top lieutenants – into a frantic rescue operation to save the downed crew.

The battle itself is spread out over five of the game's 16 missions, and sees the player go through some of the same obstacles that faced the soldiers on the ground that day. The carnage in certain parts of the firefight look good and make for intense combat, which is one of the more enjoyable aspects of *BHD*.

When playing this game, you do get the sense that Somalia was a very dangerous place to be in at the time, but you don't really see the relentlessness and ferocity of Aidid's militia, which was portrayed in the famous book and movie. And this is where some of the game's problems start to wear down *BHD*'s gameplay.

The AI, in particular, is atrocious at times. Unlike *Medal of Honor: Allied Assault*, where the sound of gunshots would alert a horde of German troops patrolling the area, *BHD* doesn't do the same with the Somali militia. In many cases, I found militiamen oblivious to my presence, even though I had killed others in the same area. Even at point blank range, a militiaman will sometimes turn away and make for an easier kill. I also couldn't understand why a shot in the leg killed an enemy just as easily as a headshot. That kind of inconsistency renders skilled shooting obsolete.

The members of your squad don't fare much better. For a team of "elite" troops, their marksmanship is woeful. It got to the point where I couldn't trust them to watch my back, and in a hostile battleground, that means death.

From a visual standpoint, this game looks good. The sandy deserts and war-torn urban areas look great, and watching a rocket-propelled grenade fly right by you definitely adds to the tension. The troops on both sides don't look very good in close-ups but do look OK from a reasonable distance.

One other strength of the game is its online play. Playing via LAN or Novaworld, online works well and plays much the same as *Medal of Honor*, with Capture the Flag, Team King of the Hill, Search and Destroy, and Attack and Defend being the choices you have.

DF:BHD isn't a bad game, but taking into account the six-month delay, it's hard to forgive the obvious gameplay issues. After a fairly successful run in its Delta Force series thus far, it's really hard to say whether *BHD* was an improvement or an aberration. ◆

more INFO

Delta Force: Black Hawk Down
$53.99
NovaLogic
www.novalogic.com/games/DFBHD

TEEN T ESRB

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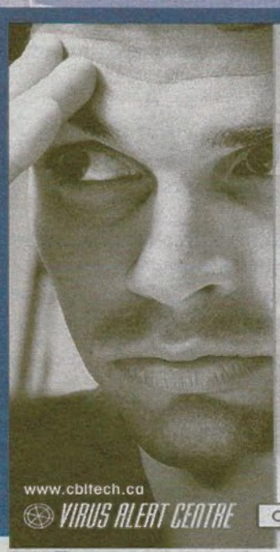

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Profile: Darryn Wilbur

Darryn Wilbur doesn't remember how many times he's crashed his motorcycle. He hasn't had any major injuries, but after a short pause he remembers breaking a wrist after going down on the bike.

Unlike the super-stardom that racers see in Europe, Asia and the US, life as a racer in Canada is a little different. Canadian motorcycle racing isn't about the money or the fame – Wilbur has a full time job as owner and president of Leading Edge Motorcars, a used car dealership – but about bikes and speed.

As far as earning his keep goes, Wilbur is a true blue-collar racer. After four years of racing with consistent top 10 finishes, Wilbur has already begun this season as a member of Brooklin Cycle's Yamaha factory racing team.

He will race 2003 Yamaha YZF-R6 and R1 motorcycles in Yoshimura 600 Sport Bike and Parts Canada Superbike, Canada's two national classes.

Who: Darryn Wilbur, Owner and President of Leading Edge Motorcars, newest member of Brooklin Cycle's Yamaha factory racing team.

Computer now used: IBM Thinkpad

Computer first used: Commodore Vic20 ... with the cassette! Used it at home for basic programming and games.

Favourite computer: Probably what I have now – my IBM Thinkpad.

Other technical gadgetry in use at this time: (cells, PDA, etc.): Cell phone, Palm Pilot. I use a camcorder a lot with the laptop. I've been doing that a lot with still pictures with the digital camera and the on-board camera that I strap to the motorcycle, downloading it in through the computer. I stick it on the bike for on-board footage and I can download digital video onto the computer then burn it onto CD or DVD, which I use for promotional stuff.

Do you use your computer for play: Not really, other than doing the camcorder stuff and the e-mails ... Sometimes for downloading music. No games at all, though.

Best thing about the technology you have: The accessibility and the fact that it's instant.

Worst thing: Crashes and when it doesn't work. I guess everyone's computer crashes at some point or another – having to rebuild a computer all over again is a nightmare.

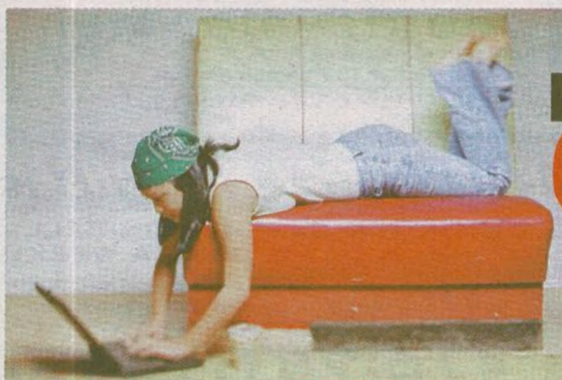
What can't you live without: Phone. I cannot live without my phone. I can live without anything else but my phone. Take my phone away and I'm dead.

Is there anything you think you need: Another phone.

What frustrates you the most about technology: Learning how to use certain things, and getting caught up in updates and changes.

Personal take on issues dealing with technology: The advances and the fact that it's changing every minute is amazing. The advances are pretty amazing, it's just that you can't keep up with them. To try is a full-time job. ◆

– Miryana Golubovich



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Toronto Computes! 6th annual Digital Design contest winners announced

For the sixth time, *Toronto Computes!* held its annual Digital Design contest, asking readers to submit their digital work for some great prizes. We're happy to announce that the winners have been selected. Without further ado, the winners are:

1st Place

FIRST PRIZE – Bart Pedziwiatr's entry titled *Teleportation Device* was selected as the first prize winner. He used *Truespace 3* and *Poser 2* to create the image and wins a 17" View Sonic VG800 LCD monitor.

2nd Place

SECOND PRIZE – Jan Zila's entry, *Checkmate*, wins second place. The image was created using *3D Studio Max* and *Adobe Photoshop* and wins an HP PSC 2210 multifunction printer.

3rd Place

THIRD PRIZE – Jose Luis Monzon's entry titled *I'm Alive* is our third place winner. *I'm Alive* was created in *Adobe Photoshop* and wins a Pine XFX GeForce 4 17mx 440 VGA video card.

CONGRATULATIONS TO OUR WINNERS AND THANKS TO EVERYONE THAT SUBMITTED IMAGES FOR CONSIDERATION IN THE 6TH ANNUAL DIGITAL DESIGN CONTEST.

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